



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/550,640	04/14/2000	Hiroyuki Kurokawa	1134.1271-DIV/DMP	9242

21171 7590 07/14/2004

STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

JERABEK, KELLY L

ART UNIT PAPER NUMBER

2612

DATE MAILED: 07/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/550,640

Applicant(s)

KUROKAWA ET AL.

Examiner

Kelly L. Jerabek

Art Unit

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 43-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 43-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 April 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 08/834,926.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Response to Amendment

Applicant's arguments, filed 4/30/04, with respect to the rejection(s) of claim(s) 43-48 under U.S.C. 102 (b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Kinba et al. US 5,597,999.

Drawings

Figures 1-9 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 43-48 rejected under 35 U.S.C. 103(a) as being unpatentable over
Kinba et al. US 5,597,999.**

Re claim 46, Kinba discloses in figure 43 an auto focus sensor module constituting an auto focus detecting device of an auto focus camera. The module includes a photographing optical system having a focus adjusting lens (14) disposed movably, beam splitting elements (15,16) for splitting light beams incident on the focus adjusting lens (14), a first image forming lens (fig. 43: lens for contrast detection method) for forming one of the light beams split into an image, and a second image forming lens (fig. 43: 2, lens for phase-difference detection method) for forming the other one of the light beams split into an image (col. 10, lines 17-32). The auto focus sensor module also includes a first focusing estimating portion (contrast detection portion) having a first imaging element (7) for picking up the image formed by the first image forming lens and a light metering area sensor (9) for detecting a difference of

Art Unit: 2612

light amounts of picture elements (col. 1, lines 12-19; col. 3, lines 52-58). The examiner takes Official Notice that it is well known in the art for focus detecting devices using a contrast detecting method to include a level detecting device such as a high pass filter for detecting a level of a proper frequency component. It would have been obvious to one of ordinary skill in the art at the time of invention for the contrast detecting method of Kinba to include a level detecting device. The first focusing estimating portion (contrast detection portion) also includes a microcomputer (19) for focusing the object image by an amount of defocus that is detected (col. 1, lines 12-19; col. 4, lines 5-17). The auto focus sensor module also includes a second focusing estimating portion (phase-difference detection portion) having an image re-forming optical system (3) for reforming light beams passing through portions with different pupils among the light beams for forming the image formed by the second image forming lens (2), and a second imaging element (4) for picking up the images formed by the image re-forming optical system (3) (col. 3, lines 44-52). The phase-difference detecting portion detects an amount and a direction of defocus by a phase-difference of an object image reproduced by two divided luminous fluxes by passing through different pupils of an aperture mask and focuses an object image by driving a lens based on the detected result of positional deviation (defocus amount) (col. 1, lines 20-27; col. 3, lines 44-52; col. 8, lines 1-12). A microcomputer (19) stores data and calculates an amount of defocus based on the stored data and also drives a motor (20) for focus operation in accordance with the defocus amount (col. 4, lines 4-17). Therefore, an imaging positional deviation is calculated and stored and a correction value is stored and

focusing data is used to focus the image on the basis of the imaging positional deviation. Additionally, the auto focus sensor module disclosed by Kinba makes it possible to select at least one of the first focusing estimating portion (contrast detection portion) and the second focusing estimating portion (phase-difference detection portion) (col. 1, lines 55-62; col. 9, lines 27-29; figures 40a, 40b). Finally, the auto focus sensor module includes a motor (20) for moving the focus adjusting lens (14) on the basis of the focusing data (col. 4, lines 4-17).

Re claim 47, the auto focus sensor module includes a microcomputer (19) that stores data and calculates an amount of defocus based on the stored data and also drives a motor (20) for focus operation in accordance with the defocus amount (col. 4, lines 4-17).

Re claim 48, the auto focus sensor module the phase-difference detecting method makes a rough adjustment based on a focus detection and the contrast detecting method makes an exact adjustment based on a focus detection in order to drive a lens into an in-focus condition (col. 1, lines 55-59; col. 9, lines 15-37). Therefore, the first focusing estimating portion (contrast detecting method) is selected if the imaging positional deviation (amount of defocus change) is under a predetermined value, and the second focusing estimating portion (phase-difference detecting method) is selected if the imaging positional deviation (amount of defocus change) is larger than a predetermined value.

Re claims 43 and 44, see claim 46.

Re claim 45, see claim 47.

Contacts

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kelly L. Jerabek whose telephone number is 703-305-8659. The examiner can normally be reached on Monday - Friday (8:00 AM - 5:00 PM).

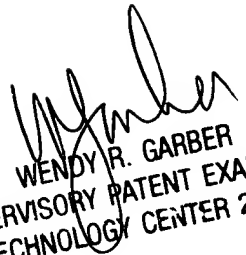
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on 703-305-4929. The fax phone number for submitting all Official communications is 703-872-9306. The fax phone number for submitting informal communications such as drafts, proposed amendments, etc., may be faxed directly to the Examiner at 703-746-3059.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 09/550,640
Art Unit: 2612

Page 7

KLJ


WENDY R. GARBER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600